WHAT IS CLAIMED IS:

1. A method of producing a piezoelectric component comprising the steps of:

forming a plurality of piezoelectric elements having a vibrating portion and a bump on a substrate;

mounting the plurality piezoelectric elements on a mounting substrate having external terminals via the bumps by flip chip bonding such that the vibrating portions are opposed to the mounting substrate;

arranging a resin film on the mounting substrate having the plurality of piezoelectric elements mounted thereon;

sealing the plurality of piezoelectric elements by embedding the resin film between adjacent ones of the piezoelectric elements mounted on the mounting substrate;

hardening the resin film; and

splitting the mounting substrate by dicing to form individual piezoelectric components; wherein

the sealing step includes a step of hot-press bonding in which the resin film is heated, softened, and simultaneously pressed by a roller.

2. A method of producing a piezoelectric component according to Claim 1, wherein in the step of hot-press bonding, the mounting substrate having the piezoelectric elements mounted thereon is passed between two rollers.

3. A method of producing a piezoelectric component according to Claim 1, wherein in the step of hot-press bonding, the mounting substrate having the piezoelectric elements mounted thereon is fixed to a flat-surface stage for the step of hot-press bonding.

4. A method of producing a piezoelectric component according to Claim 1, wherein in the sealing step, a step of pressing the resin film from the upper side thereof is carried out by a mold-frame after the step of hot-press bonding.

5. A method of producing a piezoelectric component according to Claim 1, wherein in the sealing step, the step of hot-press bonding is carried out by a mold-frame after hot-press bonding step.

6. A method of producing a piezoelectric component according to Claim 1, wherein in the sealing step, the step of hot-press bonding is repeated.

7. A method of producing a piezoelectric component according to Claim 4, wherein in the sealing step, after the step of pressing the resin film from the upper side thereof is carried out, the step of hot-press bonding and the pressing step are sequentially carried out, using the mold-frame.

8. A method of producing a piezoelectric component according to Claim 1, wherein in the sealing step, the step of hot-press bonding step is repeated, and thereafter, a step of pressing the resin film from the upper side thereof is carried out by a mold-frame.

9. A method of producing a piezoelectric component according to Claim 1, further comprising, disposing a resin-flowing-out preventing frame on the end portion of the mounting substrate after the arranging step.

10. A method of producing a piezoelectric component according to Claim 1, wherein after the mounting step, at least one sealing-assisting piece is disposed between adjacent ones of the piezoelectric elements mounted on the mounting substrate.

11. A method of producing a piezoelectric component according to Claim 10, wherein the at least one sealing-assisting piece is provided by bonding a sheet having plural openings to the mounting substrate.

12. A method of producing a piezoelectric component according to Claim 1, wherein before the mounting step, at least one sealing assisting piece is disposed between piezoelectric elements mounted on the mounting substrate.

13. A method of producing a piezoelectric component according to Claim 12, wherein after the at least one sealing-assisting piece is provided by bonding of the sheet having plural openings to the mounting substrate, piezoelectric elements are mounted onto the mounting substrate through the openings.

14. A method of producing a piezoelectric component according to Claim 12, wherein a height of the at least one sealing-assisting piece is larger than a height of the bumps and is smaller than a height of the plurality of piezoelectric elements mounted by flip chip bonding.

15. A method of producing a piezoelectric component according to Claim 1, wherein before the mounting step, the mounting substrate is surface-modification-treated to enhance the adhesion of the mounting substrate to the resin film.

16. A method of producing a piezoelectric component according to Claim 1, wherein after the mounting step, the mounting substrate is surface-modification-treated to enhance the adhesion of the mounting substrate to the resin film.

17. A method of producing a piezoelectric component according to Claim 15, wherein the surface-modification-treatment is carried out by at least one of plasma-irradiation, UV-

irradiation, corona-discharge, excimer-laser irradiation, and sand-blasting.

18. A method of producing a piezoelectric component according to Claim 1, wherein gaps between the plurality of piezoelectric elements mounted on the mounting substrate via the bumps by flip chip bonding and the mounting substrate are in the range of about 10 μm to about 50 μm.

19. A method of producing a piezoelectric component according to Claim 1, wherein a distance D between the plurality piezoelectric elements mounted on the mounting substrate and a thickness t of the plurality of piezoelectric elements have a relationship expressed by $D/t > 2$.

20. A method of producing a piezoelectric component according to Claim 1, wherein a height d of the piezoelectric component, a volume V of one of the plurality of piezoelectric elements including the bumps and the gap between the piezoelectric element and the mounting substrate, a number n of piezoelectric elements per unit area on the mounding substrate, a thickness t1 of the resin film, and an average thickness t2 of the mounting substrate (cross-sectional area/length of substrate) have a relationship expressed by $0.8 < d/(nV + t1 + t2) < 1.1$.

21. A method of producing a piezoelectric component according to Claim 1, wherein the resin film has a volume-resistivity of up to about 10^{10} Ω·m.

22. A method of producing a piezoelectric component according to Claim 1, further comprising the step of forming an electroconductive layer on the back surface of a piezoelectric element after the mounting step.

23. A method of producing a piezoelectric component according to Claim 1, further comprising the step of forming an electroconductive layer on the hardened resin film after the hardening step.

24. A method of producing a piezoelectric component according to Claim 1, wherein the plurality of piezoelectric elements are surface acoustic wave elements having at least one interdigital electrode on the surface of a piezoelectric substrate.

25. A method of producing a piezoelectric component according to Claim 1, wherein the plurality of piezoelectric elements are piezoelectric thin-film elements having a substrate with an opening or concavity and having a vibrating portion with at least one layer of a piezoelectric thin-film sandwiched

between a pair of upper and lower electrodes opposed to each other and positioned over the opening or concavity.

26. A piezoelectric component produced according to the method of producing a piezoelectric component defined in Claim 1.

27. A piezoelectric component comprising:

a piezoelectric element having a vibrating portion provided on a surface of a substrate;

a mounting substrate having an external terminal and onto which the piezoelectric element is mounted by flip chip bonding via a bump, the surface of the piezoelectric element on which the vibrating portion is provided opposes the mounting substrate; and

a resin sealing the piezoelectric element mounted onto the mounting substrate; wherein

the resin has a volume resistivity of up to about 10^{10} $\Omega \cdot m$.

28. A piezoelectric component comprising:

a piezoelectric element having a vibrating portion provided on a surface of a substrate;

a mounting substrate having an external terminal and onto which the piezoelectric element is mounted by flip chip bonding via a bump, the surface of the piezoelectric element on which the vibrating portion is provided is opposed to the mounting substrate; and

a resin sealing the piezoelectric element mounted onto the mounting substrate; wherein

the piezoelectric element has a back-surface conductive layer disposed on the back surface thereof.

29. A piezoelectric component comprising:

a piezoelectric element having a vibrating portion provided on a surface of a substrate;

a mounting substrate having an external terminal and onto which the piezoelectric element is mounted by flip chip bonding via a bump, the surface of the piezoelectric element on which the vibrating portion is formed is opposed to the mounting substrate; and

a resin sealing the piezoelectric element mounted onto the mounting substrate; wherein

the resin has a surface conductive layer disposed thereon.

30. A piezoelectric component according to Claim 28, wherein the back-surface conductive layer has an area-resistivity of up to about 10^{10} Ω/square.

31. A piezoelectric component according to Claim 28, wherein the resin has a volume-resistivity of up to about 10^{10} Ω·m.

32. A piezoelectric component according to Claim 28, wherein the back-surface conductive layer is connected to a ground terminal which is an external terminal of the mounting substrate.

33. A method of producing a surface acoustic wave device comprising the steps of:

forming a plurality of surface acoustic wave elements including at least one interdigital electrode and a bump formed on the surface of a piezoelectric substrate;

mounting the plurality of surface acoustic wave elements on a mounting substrate having external terminals via the bumps by flip chip bonding such that the at least one interdigital electrode is opposed to the mounting substrate;

arranging a resin film on the mounting substrate having the plurality of surface acoustic wave elements mounted thereon;

sealing the plurality of surface acoustic wave elements by embedding the resin film between adjacent ones of the surface acoustic wave elements mounted on the mounting substrate;

hardening the resin film; and

splitting the mounting substrate by dicing to form the individual surface acoustic wave devices.

34. A method of producing a surface acoustic wave device according to Claim 33, wherein the sealing step is a hot-press

bonding step in which the resin film is heated to be softened and simultaneously pressed by a jig.

35. A method of producing a piezoelectric component according to Claim 16, wherein the surface-modification-treatment is carried out by at least one of plasma-irradiation, UV-irradiation, corona-discharge, excimer-laser irradiation, and sand-blasting.

36. A piezoelectric component according to Claim 29, wherein the surface conductive layer has an area-resistivity of up to about 10^{10} Ω/square.

37. A piezoelectric component according to Claim 29, wherein the resin has a volume-resistivity of up to about 10^{10} Ω·m.

38. A piezoelectric component according to Claim 29, wherein the surface conductive layer is connected to a ground terminal which is an external terminal of the mounting substrate.